

METHOD OF IMPROVING BIOMASS YIELD OF LACTIC ACID BACTERIAL CULTURES

ABSTRACT

- 5 A method of enhancing biomass yield of a lactic acid bacterial species cell culture, comprising cultivating the cells in a process comprising the steps of providing conditions that results in a reduced glycolytic flux and providing conditions that enable the cells to have, under aerobic conditions, a respiratory metabolism. The increased yield of biomass may be the result of an increased yield of ATP which can be obtained by activating the native
- 10 ATP synthase activity of the H^+ -ATPase complex by lowering the ATP/ADP ratio, e.g. by carbon source limitation, and/or by increasing the proton gradient (membrane potential) of the cells, e.g. by enhancing or establishing an electron transport chain which can be achieved by enhancing expression of dehydrogenases or electron transport chain components, by adding to the medium a quinone or porphyrin compound or by enhancing the
- 15 expression of the H^+ -ATPase activity.